REMARKS

Claims 1-27 are pending in the present application, Claims 20-26 are withdrawn from consideration, and Claims 1-19 and 27 stand rejected. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

ELECTION/RESTRICTIONS

The Outstanding Office Action states that election to one of the inventions identified in Group I (Claims 1-19 and 27) or Group II (Claims 20-26) is required under 35 U.S.C. §121. Applicants affirm the election of Group I (Claims 1-19 and 27) made during the telephone conversation with the Examiner on 6/6/2005, however this election is with traverse.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1, 4-10, 12, 17-18 and 27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wakasugi (JP408213202). The Outstanding Office Action states that Wakasugi teaches a layered heater having the limitations of the claimed invention. This rejection is respectfully traversed.

At the outset, Independent Claims 1, 10, 17, 18, and 27 have been amended to include the limitation that the resistive circuit pattern defines a spacing. Wakasugi does not disclose or teach the limitation of spacing whatsoever, and the Outstanding Office Action even admits the absence of such a limitation. Accordingly, Claims 1, 10, 17, 18, and 27, and the dependent claims therefrom, cannot be anticipated and Applicants respectfully request that these claim rejections be withdrawn for at least this reason.

Furthermore, Wakasugi teaches a resistor, not a heater, and therefore a layered heater is not taught as stated by the outstanding rejection. To more clearly explain the differences between the claimed invention and the Wakasugi reference, Applicants have obtained a full English translation of Wakasugi and enclose a copy herewith for the Examiner's reference.

The portions of different thickness in Wakasugi, and more specifically the thicker portions, are limited to a location where a trimming groove 5 is positioned, wherein the function of the trimming groove 5 is to adjust the resistance of the resistor. (e.g., Page 3, paragraph [0006], lines 5-7). The trimming groove 5 is formed in a thicker portion of the resistor so that forming the groove 5 will not result in a significant reduction in the cross-sectional area of the resistor such that "...the heat generated in the portion of the resistive layer where the trimming groove is formed is reduced ...preventing the resistor from being damaged and resulting in ... improved load endurance." (Page 3, paragraph [0007]). Therefore, the thicker portions of Wakasugi compensate for the reduction in cross-section created by the trimming groove 5 to provide a more uniform resistance in the presence of the trimming groove 5. Moreover, it is the trimming groove 5 that is used to adjust the resistance of the resistor, not the thicker portions.

Since Wakasugi functions to reduce the amount of heat and to provide a more uniform resistance in the present of the trimming groove 5, Wakasugi cannot teach a heater with a variable watt density. Wakasugi teaches uniformity, not variability. Therefore, the statement in the Outstanding Office Action that "Wakasugi's resistive circuit inherently produces a variable watt density because of the various resistive thickness" is not correct since in fact a uniform resistance is produced. The different

thickness of Wakasugi compensates for the trimming groove 5 to create more uniformity, not to create a variable watt density.

Wakasugi specifically states "...an object of this invention is to provide a resistor which is so structured that the resistive layer **generates a small amount of heat** ..." [*Emphasis Added*] so that damage can be avoided. (Page 3, paragraph [0005]). Since Wakasugi is intended to reduce the amount of heat, it clearly cannot function as a heater and thus Applicants further submit that Wakasugi is not germane to the claimed invention.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 2-3 and 13-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wakasugi in view of Marsten et al (2,629,166). This rejection is respectfully traversed.

The Outstanding Office Action states that it would have been obvious to modify Wakasugi to include resistive circuit patterns and a spacing as taught by Marsten in order to improve heating characteristics of the heater.

Similar to Wakasugi, Marsten et al. teaches a resistor, not a layered heater. Accordingly, neither of these references function as a heater let alone a heater capable of producing a variable watt density. Accordingly, Applicants submit that the cited references are nonanalogous art because they are not pertinent to the particular problem that the present invention is directed to, i.e., "...to tailor the amount of heat delivered to the specific part or device being heated or to account for inherent variations in heat distribution along the heater trace or element." (Specification at paragraph [0004]).

Additionally, Marsten et al. does not teach constant or variable spacing. Each strip 24 is its own "circuit" since a terminal is provided at the end of each strip. Marsten et al. is

limited to only different widths of the strips. Accordingly, since neither Marsten et al. nor Wakasugi teach or suggest a layered heater comprising a resistive circuit pattern that defines a spacing, wherein a thickness varies along the length of the resistive circuit pattern for a variable watt density, Claims 2-3 and 13-14 cannot be obvious and Applicants respectfully request that the outstanding claim rejections be withdrawn.

Claims 15-16 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wakasugi in view of Juliano et al. This rejection is respectfully traversed.

The Outstanding Office Action states that it would have been obvious to modify Wakasugi to include a dielectric and protective layer of Juliano et al. to protect the heating structure and a plurality of resistive layers to improve heating characteristics of the heater.

Since Wakasugi is directed to a resistor that reduces the amount of heat from a trimming groove, and not to a heater, there can be no motivation to combine this reference with the heater of Juliano et al. to render Claims 15-16 and 19 obvious. Combining the structure and function of a heater with that of a resistor would render Wakasugi unsatisfactory for its intended purpose and change its principle of operation. Wakasugi seeks to reduce the heat, whereas Juliano et al. seeks to provide heat. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Moreover, there is no suggestion in either of these references of a variable thickness along a length of a resistive circuit pattern for a variable watt density and thus these claims cannot be obvious. Accordingly, Claims 15-16 and 19 cannot be obvious and thus Applicants respectfully request that these claim rejections be withdrawn.

Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Wakasugi in view of Colbert et al (3,010,850). This rejection is respectfully traversed.

The Outstanding Office action states that it would have been obvious to modify Wakasugi to include a material having a variable composition as taught by Colbert.

Claim 11 has been amended to include the limitation that the resistive circuit pattern defines a spacing. Since neither Wakasugi nor Colbert et al. disclose or teach a resistive circuit pattern defining a spacing, nor a resistive circuit pattern comprising a variable watt density, Claim 11 cannot be obvious.

Additionally, Applicants submit that there can be no motivation to combine Wakasugi with Colbert et al. since Wakasugi is directed to a resistor that reduces heat and Colbert et al. is directed to a heater that provides heat. As stated above, Combining the structure and function of a heater with that of a resistor would render Wakasugi unsatisfactory for its intended purpose and change its principle of operation. Moreover, Colbert et al. merely states that the film or layer "may be of uniform composition or variable composition." There is no further mention of the composition, and more specifically, no mention or teaching of such a composition providing a variable watt density. Therefore, Claim 11 cannot be obvious over Wakasugi in view of Colbert et al. and Applicants respectfully request that this claim rejection be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of objection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections. It is believed that a full and complete response has been made to the Outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7524.

Respectfully submitted,

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By: Kelly K. Burris

Kelly K. Burris
Reg. No. 46,361

HARNESS, DICKEY & PIERCE, P.L.C.
7700 Bonhomme Ave.
Suite 400
St. Louis, MO 63105
(314) 726-7500